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ABSTRACT

Children's car seats provide protection from the types of injury with the worst consequences. This document presents guidelines for selecting and installing child car seats, booster seats, and seat belts. The document includes suggestions for identifying when a child's safety restraint system should be changed, for determining if the restraint device is fitting correctly, and for purchasing child safety seats. Nine safety tips are outlined to allow safe car transportation of infants and young children: (1) quick safety seat checkup; (2) where a child should ride?; (3) how to protect your new baby in the car; (4) which safety seat to use for a big baby or toddler; (5) how preschool and school children should ride safely; (6) whether the safety seat is secure in the car; (7) harness strapsare a child's link to safety; (8) what safety seat recalls are; and (9) air bag safety. The appropriate size of an infant/child car seat for children of different weights is illustrated. (KB)

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Car Seats for Growing Children:

Guidelines for Counselling Parents on Which Car Seat To Use.

Illinois Department of Education

National Highway Traffic Safety Administration

U.S. DEPARTMENT OF EDUCATION
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Car Seats for Growing Children

Guidelines for Counselling Parents on Which Type of Car Seat to Use

Car seats provide protection from the types of injury with the worst consequences: head and spinal cord injuries. Such injuries can be life-threatening and are likely to cause permanent disabilities. Protection of the head and spine from the effects of a frontal (head-on) crash is most important, as this is the most common cause of fatalities and usually the most severe type of impact.

Keep these goals in mind when talking with parents:

- Protect the head.
- Protect the spinal cord.
- Prevent forward motion of the child in a head-on crash.

Critical decision points for the parent are:

- When to change the orientation of the car seat from rear- to forward-facing.
- How long to keep the child in a forward-facing car seat.
- What to use once the child has outgrown a forward-facing seat.

The wide range of shapes, sizes, and weights of children at any particular age make generalizations difficult. Some children within the weight limits listed on products may not, in reality, fit in them very well, especially when wearing bulky clothing.

Infants from birth to about one year of age and who weigh up to twenty pounds should face the rear of the vehicle.

A rear-facing car seat provides the very best protection for the disproportionately heavy head and weak neck of a young child. This position minimizes the stress on the neck by spreading the forces of a frontal crash over the entire back, neck, and head; the spine is supported by the back of the car seat. If the seat were faced forward, the head would whip forward due to the force of the crash, creating enormous stress on the neck. (In fact, all passengers would be better protected by riding facing the rear.)

Since facing a small infant forward is a commonly observed form of misuse, the value of the rear-facing position should be emphasized to parents. Neck injuries have been documented in children under 20 pounds facing forward. Therefore, babies should ride facing the rear until they weigh 20 pounds, even though the upper weight and height limits on some infant-only car seats are 17 pounds and 26-28 inches. When children outgrow their infant-only seats, they should be switched to a convertible seat, also used facing the rear. This convertible seat should be used until they reach the 20-pound turnaround time, closer to one year of age.

What about car beds? Two are on the market (Cosco Dream Ride, Swinger) and others may appear shortly. At this time, the well-documented protection afforded by the semi-reclined, rear-facing car seat generally makes this position preferable to the flat position of a car bed for an infant. With some medical conditions, however, it is clear that the baby should lie prone or supine.

Note:

To better protect babies who reach 20 pounds unusually early, some safety experts now suggest keeping the child in a rear-facing convertible seat for at least a few more months to allow time for further neck development. In such a case, parents must brace the rear-facing convertible seat against the dashboard (by moving the passenger seat forward) or against the back of the front seat (if used in the rear seat).

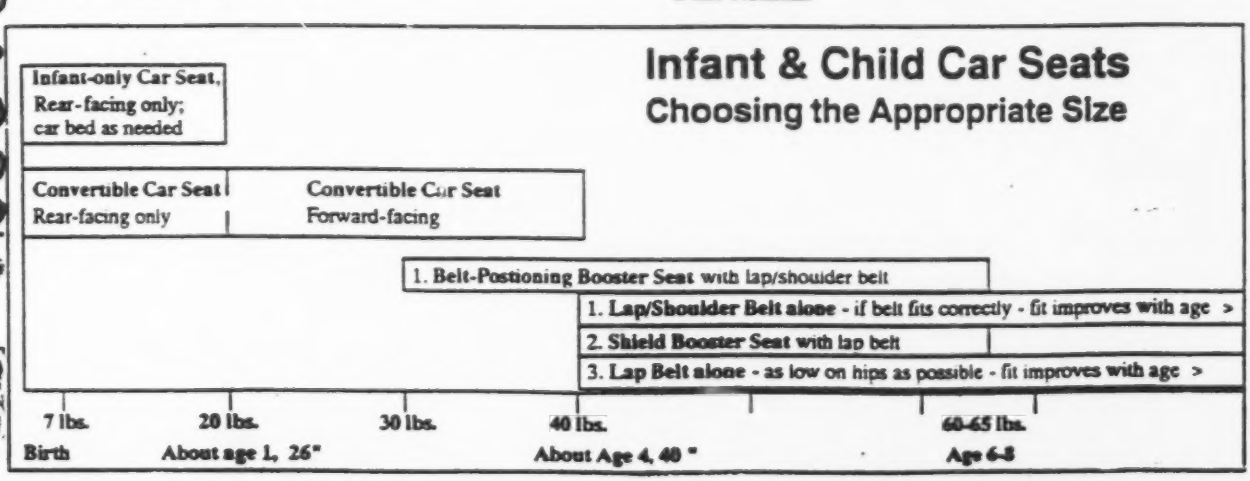
Children over age one who have not yet reached 20 pounds should remain facing the rear if their legs are not too cramped and they are comfortable riding semi-reclined.

Children who weigh from 20 to 43 pounds and who are close to four years of age should use a forward-facing convertible car seat or vest.

For the child between 20 and 40-43 pounds and less than age four, the forward-facing convertible car seat or vest (E-Z-On Vest, Little Cargo) provides the best protection. A few seats have upper limits between 40 and 43 pounds. Parents should be encouraged to continue convertible seat use for as long as the child fits in the seat. Those with generously proportioned babies should be urged to purchase convertibles with higher upper limits.

Correct installation and use greatly affect the degree of protection for the head and spine.

- The correct position of the vehicle seat belt and its degree of tightness affect how far forward the convertible car seat will tilt and the child's head will travel (and whether it could strike the interior of the car) during a frontal crash. A tight belt is crucial to the effectiveness of a vest as well.
- The use of a tight tether strap (required on many pre '86 models and on one harness) reduces head motion considerably. For one vest, a tether strap is essential. An optional tether strap, available for a few newer model car seats, is also beneficial.


Infant & Child Car Seats
Choosing the Appropriate Size
Infant-only Car Seat, Rear-facing only; car bed as needed
Convertible Car Seat Rear-facing only
Convertible Car Seat Forward-facing
1. Belt-Positioning Booster Seat with lap/shoulder belt
1. Lap/Shoulder Belt alone - if belt fits correctly - fit improves with age >
2. Shield Booster Seat with lap belt
3. Lap Belt alone - as low on hips as possible - fit improves with age >
7 lbs.
Birth
20 lbs.
About age 1, 26"
30 lbs.
40 lbs.
About Age 4, 40 "
60-65 lbs.
Age 6-8

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- The snugness of the harness straps also affects how far the head moves and whether it hits the interior of the car.

- The upright position of the car seat and the shortness of the crotch strap (if adjustable) protect the spine by preventing the child from sliding down and forward during a crash.

Since the benefits of convertible seats are superior to seat belts and shield booster seats, the child should remain in the convertible car seat to the upper weight and height limits on the seat (40-43 pounds and 40 inches), if possible. Shield booster seats, while often labeled as suitable for children as light as 20 to 30 pounds, are not recommended until the convertible seat is completely outgrown.

For children who reach 40 pounds long before four years of age, or who get too tall or broad for their convertible seats below that weight, one solution is a belt-positioning booster (made specifically for use with lap/shoulder belt).* It works well for children over about **30 pounds**, because it provides upper body restraint to protect the spine and head. (Small shield boosters should **not** be used under 40 pounds.) The Ford Tot-Guard (large shield, for 30-50 pound child) or larger-size E-Z-On Vest can also fill this gap.

Over 40 pounds, the choice depends on the type of seat belt available and how it fits.

When the child no longer fits into a convertible car seat, there are four choices, depending on the type of seat belts that are available in the rear seat where the child should preferably sit. Protection of the head and spinal cord require an upper-body restraint system, preferably a correctly-fitting vehicle shoulder belt. Protection for the spine also requires correct fit for the lap portion of the vehicle belt. An incorrectly fitted lap belt, used alone for a child, has been found to cause both spinal and abdominal injuries, if it rides up around the waist. Also, a lap belt alone may not prevent the head from hitting the vehicle interior.

The choices for children between 40-65 pounds, in order of preference:

1. ***Either* a lap/shoulder belt (if proper fit can be maintained) *or* a belt-positioning booster seat (one intended to correctly position a lap/shoulder belt).***
2. **Shield booster seat - if only a lap belt is available.**
3. **Lap belt in the rear seat - fastened tightly and positioned low on the hips.**

Many states require child restraint use up to or through age 4 or 5, rather than to 40 pounds. Use of a belt-positioning or shield booster - rather than a seat belt - would be necessary for compliance for the under-age child over 40 pounds.

The value of rear-seat shoulder belts should be made clear to parents. Retrofit kits are available for many cars made since 1978. If parents intend to keep their current vehicle for some time, they should be urged to upgrade their rear belt systems.

When a child's ears reach above the top of the auto seatback, the risk of whiplash from rear-end crashes increases. Rear vehicle seats in most cars and vans have no head restraints; some have very low backs. To provide better protection from whiplash, parents may prefer to have their child stop using a booster seat and use the lap/shoulder belt instead, if the belt fits correctly. However, if the alternative is an ill-fitting lap belt, safety experts recommend that the child continue using the booster seat, until proper lap belt fit can be achieved.

Achieving Correct Belt Fit:

A correctly positioned shoulder belt lies across the shoulder and may touch the base of the neck. A correctly fitted lap belt, or lap portion of a lap/shoulder belt, must be tight and low, placed where the legs meet the torso. The child must sit with buttocks against the back of the seat. Various factors, belt and seat cushion design, the lack of well-developed hip bones in children, and the tendency of children to slouch may contribute to making this fit difficult or impossible to achieve. As the child grows, belts will fit better, of course.

If the shoulder belt crosses the child's throat, lower the shoulder belt height adjuster, if the vehicle has this feature. Otherwise, move the child closer to the center of the vehicle. Moving an adjustable vehicle seat forward or backward may also change the position of the belt. However, do not recline the vehicle seatback to reposition the shoulder belt, as the belt should lie against the body with no gap. Never place the belt under the outboard arm, as this can lead to internal injuries.

For correct lap belt fit, be sure the child sits with buttocks against the vehicle seatback. Fasten the belt very snugly and as low as possible. Watch to make sure the child does not slump or wriggle, displacing the belt up toward the waist.

In an Emergency...

While not the best choice for a small child, a lap belt should always be used by any child old enough to sit up if the recommended restraint system is not available. Care should be taken to make sure that the belt stays down on the hips.

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* Belt positioning boosters currently on the market (Gerry Double Guard, Century CR3) have a removable shield so that they can be used either with the shield, if only a lap belt is available, or without it, if a lap/shoulder belt is available for use. The Volvo Child Cushion (for children over 50 lbs.) is for use only with a lap/shoulder belt. Early models (Cennary Safety-T-Rider (LII), Cosco Travel Hi-Lo, Kolcraft Tot-Rider, Strolee Wee Care Booster) came with a tethered harness for use if only a lap belt is available.

Source: Safe Ride News, Fall 1990
American Academy of Pediatrics

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Belts, Boosters, and Kids

When should my child move out of a convertible or toddler seat?

A child should use the convertible or toddler seat as long as it fits. The seat is outgrown when the upper weight limit is reached, the child's shoulders are too broad, or his or her ears are above the back of the restraint, usually close to 40 pounds. A restraint with shoulder straps and a shell is usually more protective than a booster seat or a safety belt, so the child benefits from staying in it.

Is it necessary to use a booster seat?

Safety belts are designed to fit adults. Children under 7, 8, or even 9 years of age will usually benefit from a booster seat to improve safety belt fit. Belt fit varies from one child to another and from one vehicle to another.

"Seat belt syndrome," which involves serious spinal and internal injuries, is usually related to poor lap belt fit. Stop and take a look at how the lap belt lies across your child's body (see below) and how the child sits in the vehicle. Shoulder belt fit is also important.

How should a lap belt fit?

The lap belt should fit low and tight across the top of the user's thighs, not up on the belly. The child should be able to sit comfortably with his or her buttocks against the seat back during the entire ride.

Children usually do not fit the vehicle seat well, which leads to slouching and poor lap belt fit. One reason they slouch is because their legs are short. When they sit on the bench seat, their knees cannot bend naturally. In addition, in many vehicles the child's feet hit the seatback and are forced downward, accentuating the slouch.

Other causes of poor belt fit are the location of belt anchor points and, in some cases, stiffeners on the buckles. When the lap belt comes from behind the seat, it tends to wrap around the belly rather than up and over the top of the thighs. If the buckle is stiff, the belt may not stay down on the child's thighs. Some even leave space between child and lap belt when fastened! All of these are reasons why a child may need a booster seat.

How should a shoulder belt fit?

The shoulder belt should cross the shoulder, not the throat or face. Short stature of the child contributes to poor shoulder belt fit, of course. Proper position of the shoulder belt is important. Injuries can happen if the shoulder belt is too high.

Some vehicles have built-in guides or height adjusters to make the shoulder belt fit better. Add-on devices to reposition the shoulder belt are sold for children, but are not controlled by any federal standard. Some manufacturers have tested their products in the same way safety seats are tested. *However, an add-on device should not be used if a child fits into a safety seat or booster.* Shoulder belt positioning devices also do not improve lap belt fit.

A belt-positioning booster seat (see below) raises the child up so that the shoulder belt fits better, while improving lap belt fit.

Can I put the shoulder belt behind my child?

This should be a last resort on occasional rides in unfamiliar vehicles, not a general practice. It is much better to use a belt-positioning booster (see below) so your child has the benefit of the shoulder restraint. Also, most lap/shoulder belts work best when a crash occurs if both belts are snug against the body. It is generally considered better to use a lap belt alone rather than a lap/shoulder belt without the shoulder portion in place.

Which type of booster should I choose?

This depends on the safety belt systems in the vehicles in which your child will ride. These are the types and their features:

- **Shield booster** (upper right) is intended for use with a lap belt. Less effective as children get taller.
- **Booster with no shield** (called a "belt-positioning booster" or BPB, lower right) is designed for a lap and shoulder belt used together. The BPB provides better protection than the shield booster because the shoulder belt

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reduces the distance that the child's head can move in a crash–and limits what it could hit.

- **BPB with a high back** is beneficial if your vehicle has low vehicle seatbacks.
- **Booster with a removable shield** can be used with either type of belt system. This is often convenient, especially if the shield is easily taken off and replaced.

What if I have a shield booster but my vehicle has shoulder belts?

If you want the best benefit for your child, switch to a BPB. If you choose to continue using the shield booster, it is generally best to put the shoulder belt behind the back rather than across the child's chest. Shield boosters are meant to work with the child's body wrapping around the shield in a crash. If the shoulder belt is in front, it may prevent the shield from functioning correctly.

Should I use a locking clip with a booster seat?

Yes, with a shield booster. The locking clip secures the restraint system by holding the lap belt tight around the shield or through the base of the shield booster.

No, with a belt-positioning booster. The BPB merely positions the child beneath the lap/shoulder belt. The belt is made to function properly without a locking clip. Lap/shoulder belts that do not lock in normal driving **do** lock up in a crash.

When should I move my child from a booster to a safety belt?

This will depend on when your child properly fits the lap (or lap/shoulder) belts in your vehicle. As your child grows, try her is the belts from time to time.

Most booster seat instructions state that a child should stop using the seat when his or her ears are above the seatback. This depends on the seated height of your child and the height of the seatback. In some vehicles, even a fairly short child may be too tall when using a booster. (See Whiplash, below.)

What about whiplash and kids?

If a child's head sticks up above the seat back there may be a potential for whiplash injury. However, there is no good evidence for how often this type of injury happens. Some belt-positioning boosters have high backs that may limit the potential for whiplash in rear-end collisions.

If your vehicle has seats with low backs and the fit of the lap belts in your vehicle are so poor that you want your child to continue using a booster seat despite his height, you could obtain a booster with a high back. Otherwise, you must weight the risk of injury due to the lap belt versus that to the neck. To summarize:

- Whiplash may happen to children, but is seldom life-threatening.
- Seat belt syndrome is a well-documented problem in serious crashes, and can be life-threatening.

You can make the choice that seems best to you.

Parents and Other Adults: Correct Belt Use is Important for You, Too

Wearing safety belts is important for everybody. Children learn good–and bad– habits from watching what adults around them do. Besides, children deserve to have their caregivers survive if a crash occurs. Furthermore, unrestrained passengers can cause injury to those who are riding buckled up.

Wearing a belt correctly means pulling the lap belt snug. Push it down to the top of your legs. If it rides up on your abdomen, you could be at risk for "seat belt syndrome" injuries. Keep the shoulder belt snug across your chest. If the shoulder belt cuts into your neck, **never** put it under your arm. This could cause fatal injuries to your internal organs. There are several ways to make the shoulder belt more comfortable:

- Buy a soft shoulder belt cover to protect your neck.
- Adjust the belt anchor to the lower position, if your car has this feature.
- Use an add-on belt repositioning device (seeprevious page).

Prioritizing restraints for children from 40 lbs. to about 60-80 lbs.

1. Belt-positioning booster with lap & shoulder belt–and with high back if needed.
2. Shield booster with lap belt only (most appropriate for shorter children).
3. Lap/shoulder belt (if both belts fit correctly) or with shoulder belt adjuster.
4. Lap belt alone (if belt fits correctly and no shoulder belt is available).

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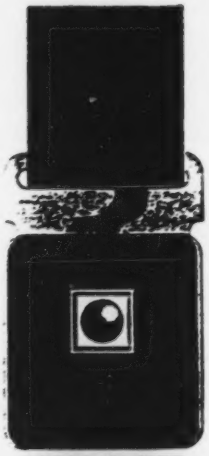
Purchasing Safety Seats



Safety Tips...

Purchasing Child Safety Seats

What is the best child car seat? Simply stated, there is no best or safest child safety seat. However, there are five general guidelines to follow when purchasing a child safety seat.

- **Check to see that the child safety seat is federally approved.**

  All child safety seats manufactured after January 1, 1981, are federally approved. Federally approved seats are crash tested and have met all applicable federal motor vehicle safety standards. Periodically, recalls or safety notices may be issued by the manufacturers to correct safety problems. One of the best ways to ensure that you receive notification of recalls or safety notices is to complete and return the registration card that is included with the safety seat.

- **Purchase a child safety seat that fits the age, size and weight of your child.**

  Safety seats are designed for children who are average, in terms of height and weight. Infant safety seats are designed to fit children from birth to approximately nine months of age or 20 pounds in weight. However, premature babies may require special safety seats, and newborns, in general, may not be tall enough to fit in convertible seats that have padded abdominal shields or shelf-type harness systems. To avoid injury, a child's shoulders should be above the padded abdominal shield or above the shelf on a shelf-type harness system. Convertible seats (those which convert from infant to toddler seats) are designed to fit children from birth to approximately four years of age or 40 pounds in weight and 40 inches tall. A child has outgrown a safety seat when the midpoint of her or his head is above the top of the safety seat.

- **Use the safety seat properly.**

  Each safety seat is different, so it is important to review the manufacturer's instructions and to understand how to use the safety seat correctly.

- **Check for compatibility with the vehicle and the safety belt system.**

  Eighty percent of the safety seat base should rest on the vehicle seat, and the safety belts in the vehicle should be long enough to secure the safety seat properly. Moreover, if the safety seat has a shelf-type harness system that must be raised, the vehicle ceiling should be high enough to allow the child to enter and exit the safety seat comfortably.

  Check the owner's manual for exact information on safety seat installation. CAUTION: If a vehicle is equipped with an air bag on the passenger side, a rear-facing infant seat must NOT be secured in either the center or right side seating position. In the event of a crash, the air bag would deploy with great force and strike the leading edge of the rear-facing seat, possibly injuring the infant.

- **Choose a safety seat that will be used on every trip.**

  All of these guidelines are important when purchasing a child safety seat. However, a safety seat that is federally approved, fits the child and the vehicle, and is used properly will only provide maximum protection if the child is secured in it every time she or he rides in the vehicle.

For more information about child safety seats, safety belts and automatic crash protection systems, please contact:

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3215 Executive Park Drive
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(217) 782-5865
or (800) 525-0844 TDD only

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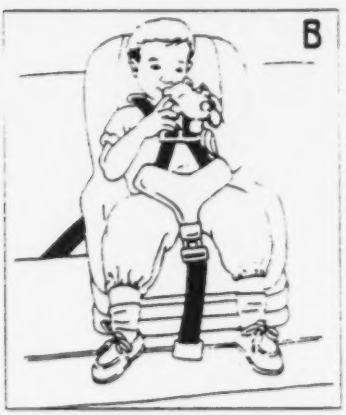
Baby under one year and at least 20 pounds faces the rear.

The safety seat harness holds the child in place, and the vehicle belt holds the seat in the car.



Child over age one and at least 20 pounds may face the front of the car.

Belt-positioning booster is used with both lap and shoulder belts.

Auto booster seats are for children who have outgrown safety seats, at 40 pounds.

Booster with a shield (right) is used with a lap belt.

Tip #1
quick safety seat checkup

Does your child ride in the back seat?

- The back seat is generally the safest place in a crash.
- If your vehicle has a passenger air bag, it is essential for children 12 and under to ride in back.

Does your child ride facing the right way?

- Babies should ride facing the rear up to at least age one and 20 pounds. (**A**)
- Children over age one and at least 20 pounds may ride facing forward. (**B**)

Does the safety belt hold the seat tightly in place?

- Put the belt through the right slot. If your safety seat can be used facing either way, use the correct belt slots for each direction.
- The safety belt must stay tight around the safety seat. Check the vehicle owner's manual for tips on using the safety belts.

Is the harness buckled snugly around your child?

- Keep the straps over your child's shoulder. The harness should be adjusted so you can slip only one finger underneath the straps at your child's chest. Place the chest clip at armpit level.

Does your child over 40 pounds have the best protection possible?

- Keep your child in a safety seat as long as possible, at least until 40 pounds. Then use an auto booster seat that makes vehicle belts fit better. Most children this size are much too small to fit correctly in safety belts.
- A booster seat without a shield (**C**) is preferred. It is used with lap **and** shoulder belts. A booster with a shield (**D**) is used if your car has **only** lap belts in back. Check on special products for heavy children too active to sit still in a booster.

How should a safety belt fit an older child?

- The child must be tall enough to sit without slouching, with knees bent at the edge of the seat. The lap belt must fit low and tight across the upper thighs. The shoulder belt should fit over the shoulder and across the chest. Never put the shoulder belt under the arm or behind the back.

For more information, read Child Auto Safety Tips #2 to #9 and call your local safety group or the Auto Safety Hotline: 1-800-424-9393.

Even the "safest" seat may not protect your child if it isn't used correctly.

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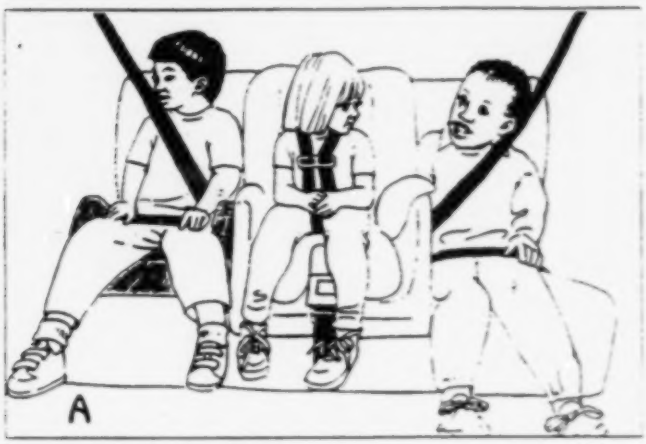
Tip #2
where should your child ride?



The back seat is safer than the front. The center belt often work best for a safety seat. Older children should use booster seats with lap/shoulder belts for best protection until age 7-8

Always read the car owner's guide for advice on installing safety seats

Everybody needs a safety belt or safety seat!

Basic Safety Facts to Remember:

- Everybody needs a safety belt or safety seat!
- Anyone who rides loose can hurt those who are buckled up by being thrown against them. People riding without belts or safety seats can be hurled out of the car and seriously hurt.
- The back seat usually is safer than the front, because head-on crashes are the most serious and the most common kind. (**A**)
- There must be one belt for each person. Buckling two people, even children, into one belt could injure both. Each child safety seat needs a safety belt to hold it in place.
- If no shoulder belt is available, it's much safer for anyone (except small babies who can't sit up) to use just a lap belt than to ride loose. Keep the lap belt low and snug across the thighs
- Children who have outgrown safety seats are better protected by lap/shoulder belts than by lap belts alone. So if several children are riding in back, and there are shoulder belts there, let the older ones use the shoulder belts. Put the child riding in the car seat in the middle where there is only a lap belt. (**A**)
- Infants must ride facing the rear of the car. In this position, the safety seat cushions the head and back.
- Infants must ride facing the rear of the car, even if they are out of the driver's view in the back seat. Parents should feel just as comfortable in this situation as they do when they put their babies down for a nap and leave the room. If a baby has special health needs that require full-time monitoring, ask another adult to ride with the baby in the back seat and travel alone as little as possible.

Does your car have an air bag for the front passenger seat?

An infant or child could be seriously injured or killed by an inflating air bag. See the other side for details.

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A passenger-side air bag can seriously harm a child riding in the front seat of the car.

Many new cars have air bags for the right front seat. Air bags work with lap/shoulder belts to protect teens and adults. To check if your vehicle has air bags, look for a warning label on the sun visor or the letters "SRS" or "SIR" embossed on the dashboard. The owner's manual will also tell you.

Everyone in this family buckles up. Mother sits in back beside her baby to watch and play with him. This car has a passenger-side air bag, so the baby ALWAYS rides in back.

An inflating passenger-side air bag is extremely dangerous for a baby in a rear-facing safety seat. An air bag also can be hazardous for children age 12 and under who ride facing forward. This is especially true if they are not properly buckled up in a safety seat, booster seat, or lap and shoulder belt.

In a crash, the air bag inflates very quickly. It would hit a rear-facing safety seat hard enough to kill the baby. **Infants must ride in the back seat, facing the rear. (C)** Even in the back seat, do not turn your baby to face forward until he or she is over one year of age and weighs at least 20 pounds.

If there is no room in back and you have no alternative, a child over age one may have to ride in front. Make sure the child is correctly buckled up for his or her age and size and that the vehicle seat is moved as far back as possible. Fasten the harness snugly, and make sure a child using a lap and shoulder belt does not lean toward the dashboard. Read your vehicle owner's guide about the air bags in your car.

Parents who buckle up show their children that it is important to ride safely.

WARNING: If the front right seat has an air bag, a baby in a rear-facing safety seat must ride in the back seat. All children age 12 and under should ride in back.

Remember: One Person - One Belt

- Never hold a child on your lap because you could crush him in a collision. Even if you are using a safety belt, the child would be torn from your arms in a crash.
- Never put a belt around yourself and a child on your lap.
- Two people with one belt around them could injure each other.
- The cargo area of a station wagon, van, or pickup is a very dangerous place for anyone to ride. Anyone riding in the bed of a pickup truck, even under a canopy, could be thrown out!

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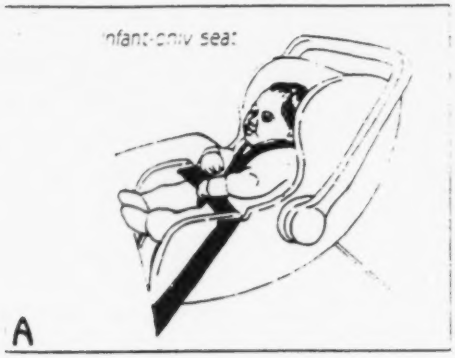
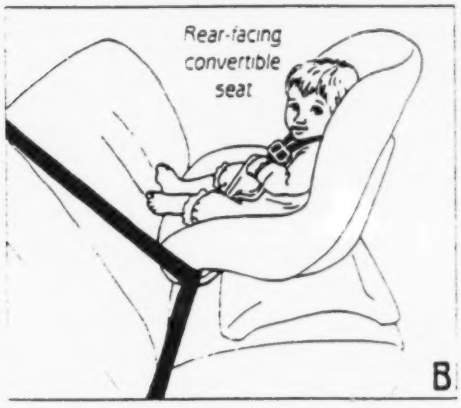
Tip #3
how to protect your new baby in the car



This kind of seat fits babies under 17-22 pounds only and always faces the rear



▲ A convertible seat fits an infant facing the rear, and a toddler facing the front ▼

Everybody would be safest facing backward while riding in a car. Babies are lucky to have seats that work this way. Infants are safe when riding facing the rear, because the back of the safety seat supports the child's back, neck, and head in a crash. So, whichever seat you choose, your baby should ride rear-facing until at least one year of age and at least 20 pounds.

Two kinds of safety seats are made for babies:

1. Small, lightweight "infant-only" safety seats are designed for use rear-facing only. This kind can be used only as long as the baby's head is enclosed by the top rim of the seat. (**A**) The label on the seat gives the upper weight limit (17 to 22 pounds). One seat can be converted into a car bed for babies who must lie flat.

2. Larger "convertible" seats usually fit children from birth to about 40 pounds. This kind is used facing the rear during the first year. (**B**) It may be turned around to face the front when the baby is at least one year old and at least 20 pounds. (**C**) Some new models have weight limits as high as 30 to 32 pounds for rear-facing use. These products are especially good for babies under age one who are growing more rapidly than average.

How to choose the best seat for your baby:

The simplest and least expensive model usually will work as well as one with fancy features. Choose a seat that you find easy to use and that fits in your vehicle.

- Before you buy a seat, try it in your car to make sure it fits and can be buckled in tightly. If you choose a convertible seat, try it facing both rearward and forward.
- Look for the seat you can use facing the rear as long as possible. Read the labels to check weight limits. If you buy an infant-only seat, you will need a convertible seat later. Most babies need to use rear-facing convertible seats as they get larger, because they outgrow their infant-only seats before age one. Some products are made to carry a baby over 20 pounds facing the rear. Look for a seat with a higher weight limit when you shop.

Practice buckling the seat into your car before your baby's first ride.

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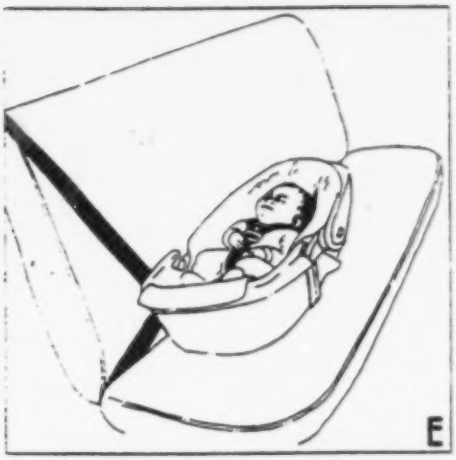
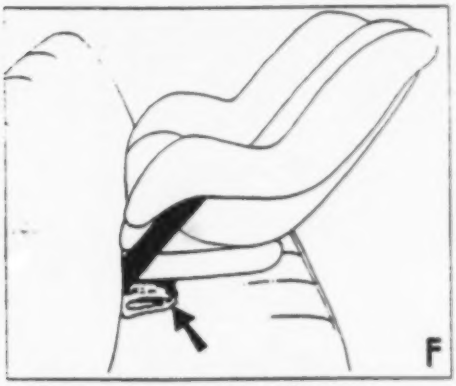


In this crash-tested car bed a newborn baby can ride lying flat. This product converts to a rear-facing seat.



The rolled towel under the safety seat makes it tip back just far enough so the baby's head lies back comfortably. A baby should recline half way back.

A new baby needs support. Put rolled up towels or diapers on each side.

More tips on choosing a seat:

- You'll save a little money if you buy one convertible seat to do the job from birth to 40 pounds, but an infant-only seat may be easier for you to use and may fit your newborn baby better.
- An infant-only seat can be carried with you wherever you go. It can be used at home also.
- Some infant-only seats come in two parts. The base stays buckled in the vehicle, and the seat snaps in and out. You may find these convenient.
- If you want to use a convertible seat for a newborn baby, choose one without a padded shield in front of the baby. Shields do not fit small newborn babies properly. (**D**, page 1) The shield comes up too high and may make proper adjustment of the harness difficult.

What about seats for premies?

- Use a seat with the shortest distances from seat to harness strap slots, and from back to crotch strap. Use rolled blankets to keep the baby from slumping (**G**, see below).
- A baby born earlier than 37 weeks may need to use a car bed if he or she has any possibility of breathing problems when sitting semi-reclined. Ask your baby's doctor if your baby needs to be tested before discharge for breathing problems.

What to do if your baby's head flops forward?

- It's important for an infant to ride sitting semi-reclined (halfway back or 45 degrees from horizontal). In the car, you may find that the safety seat is too upright for a new baby who can't hold up his or her head. You can put a tightly rolled bath towel under the front edge of the safety seat to tilt it back a little so your baby's head lies back comfortably. (**F**) Do not recline it too far.

Harness straps must fit snugly on the body.

- Use lowest harness slots for a newborn infant. Keep the straps in the slots at or below your baby's shoulders for the rear-facing position.
- It is very important for harness straps to fit properly over the shoulders and between the legs. Dress your baby in clothes that keep legs free. If you want to cover your baby, buckle the harness around him first, then put a blanket over him. A bulky snowsuit or bunting can make the harness too loose.
- To fill empty spaces and give support, roll up a couple of small blankets and tuck them in on each side of your baby's shoulders and head. (**G**) If he still slumps down, put a rolled diaper between his legs behind the crotch strap. Thick padding should not be put underneath or behind the baby.

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Tip #4
what safety seat to use for a big baby or toddler?

Convertible safety seats can be used for big babies and toddlers

B. Same convertible seat facing forward

Vest has shoulder, hip, and crotch straps. Vehicle belt goes through the back of the vest.

This model is both a child seat with harness up to 40 lbs. and a belt-positioning booster for the older child.

When your baby grows too tall or too heavy for an infant-only seat, you'll need a larger seat.

There are two kinds.

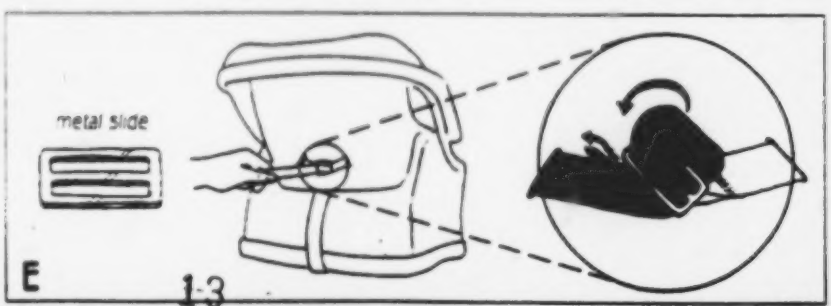
1. The convertible safety seat, which fits either a baby riding rear-facing (**A**) or a toddler riding facing forward. (**B**) This kind must be used if your baby has outgrown an infant-only seat. A baby should ride facing rearward to at least one year of age and 20 pounds.

2. Forward-facing child vest (**C**) or seat (**D**) are for children over age one. These products hold children of varying sizes. Be sure to read the label and instructions. Some combine a toddler seat with a belt-positioning booster (**D**). Some are built into the vehicle seat.

Warning: Most toddlers are not big enough or old enough for a booster seat. They need a full harness to give protection for the upper body and to hold them in their seats.

When choosing a safety seat, remember:

- A seat that is easy to install and use will be the best for you and your child. Find and read the instruction booklet.
- Look for a convertible seat that has a higher weight limit in the rear-facing position if your baby is bigger than average.
- Try locking and releasing the buckle in the store. Try changing the length of the straps. Some harnesses adjust automatically to fit the child. Many can be adjusted easily from the front or the side. Others have a metal adjustment slide through which you must pull the straps.
- If the seat has a metal slide adjustor, you must thread the strap up and down through the openings, then back through the first slot (**E**) to "lock" it every time you adjust the harness. This keeps the strap from pulling through the slide in a crash, which would allow the child to be thrown out.
- Try the seat in your vehicle. Most safety seats fit better into some vehicles than others. Cars with bucket seats or small rear seats may present problems.



Strap on metal slide adjustor must be threaded back through the slide to hold tight.

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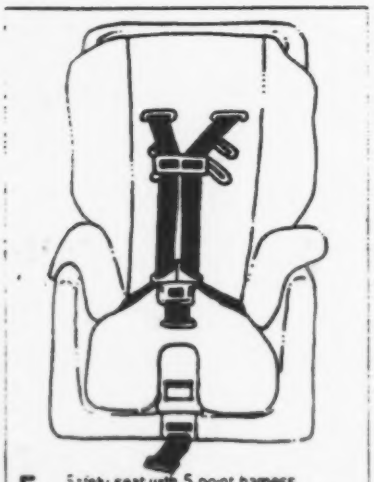
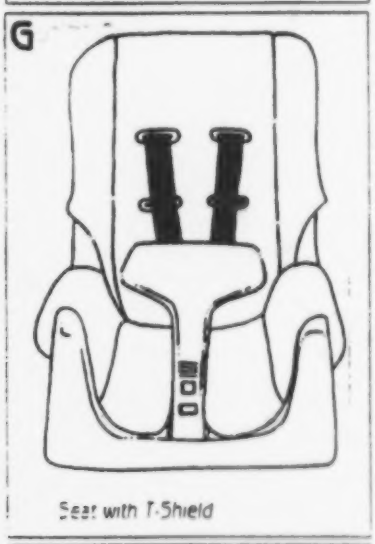
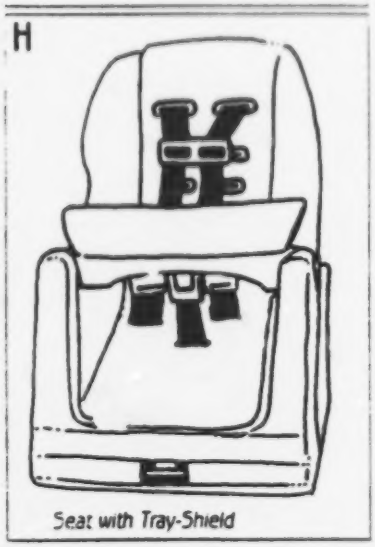


F Safety seat with 5-point harness, showing retainer clip on shoulder straps



G Seat with T-Shield



H Seat with Tray-Shield

Which kind of harness is best?

There are three kinds. The basic 5-point harness has shoulder, hip, and crotch straps. These five points of attachment give a child excellent protection. The T-shield or tray-shield takes the place of hip straps to hold the lower body in the seat. Most seats come with a plastic **harness retainer clip** that holds the two shoulder straps together. Keep it at armpit level on your child to hold the harness straps on the shoulders. Special features of harnesses follow:

5-Point Harness

A 5-point harness (**F**) is preferred by many safety experts because the lap part of the harness fits over the child's strong hip bones. This kind of harness can be adjusted to fit snugly on both very small infants and larger children. However, the straps may twist and tangle. Keep the straps flat for maximum protection.

T-Shield

Shoulder straps are attached to a flat pad. (**G**) The shield reduces twisting of shoulder straps. It can be buckled quickly with one hand. Some have straps that adjust automatically to fit properly.

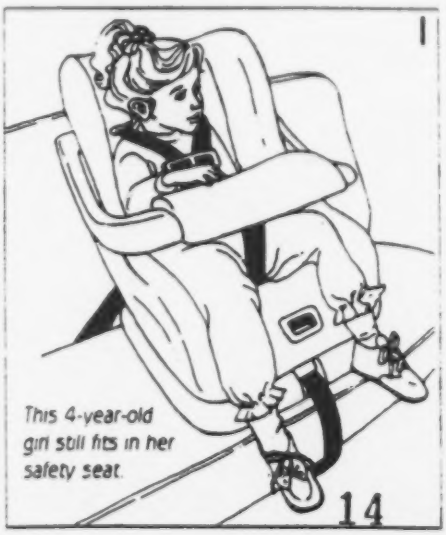
Tray-Shield

Shoulder straps are attached to a wide, padded shield (**H**) that swings up. Some shields may not fit over the child's head unless the straps are adjusted each time. This may give you the mistaken idea that your child has outgrown the seat. In some cars, the roof may be too low to allow you to raise the shield completely.

When you use a convertible seat, remember:

Keep it facing the rear as long as possible, until your baby is at least one year old and weighs at least 20 pounds. Then adjust it for the forward-facing position.

- Use the upright position when it is facing forward.
- Move up the harness straps. They must be above your child's shoulders. Most seats require use of the top-most slots for the forward-facing position. The top slots are reinforced to prevent the harness from failing in a crash. A few allow use of the center slots; check weight limits in the instructions.
- Use the correct belt path for forward-facing installation.
- **Keep your child in a safety seat with a harness up to at least 40 pounds. (I)** When the child's shoulders are above the top harness slots, move her to an auto booster seat that helps safety belts fit properly (Tip 5).
- Always follow the instructions that came with your child's seat.



I This 4-year-old girl still fits in her safety seat.

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Tip #5
how should preschool and school children ride safely?

Your child should stay in a car safety seat with shoulder straps until it's outgrown, usually at about 40 pounds. When a child's shoulders are above the top set of strap slots, it is time for a booster seat. (A few regular safety seats have an upper weight limit above 40 pounds. Follow their manufacturers' instructions.)

Booster seats fit children up to 60 to 80 pounds. They protect the child's upper body with either the shoulder belt or with a shield. The booster also raises the child so the vehicle lap/shoulder belt fits well. Where only a lap belt is available, a booster with a low shield spreads crash forces across the child's hips.

Why use a booster seat instead of a safety belt?

- Most 40-pound children are not big enough to fit lap and shoulder belts properly
- A belt that rides up on the tummy could cause serious injury.
- Many young children do not sit still enough or straight enough to keep lap belts low across their thighs.
- Boosters are comfortable for children because they allow their legs to bend normally. This also reduces slouching, one cause of poor lap belt fit.

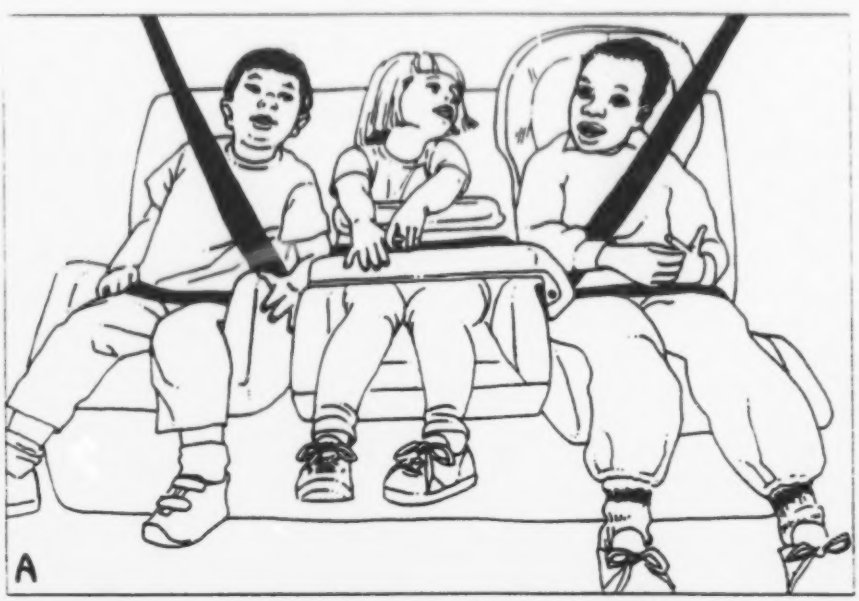
Three kinds of booster seats (A):

1. Boosters without shields, for use only with the vehicle lap/shoulder belt. (left, right) Because raising the child improves belt fit, these are called "belt-positioning boosters." These give better protection than boosters with shields. Some have a high back that gives head support for taller children. (right) Some boosters of this type are built into vehicle seats.
2. Boosters with removable shields. Use without the shield to make combination lap/shoulder belts fit right. (left) Add the shield when only a lap belt is available.

   Some boosters have attached shields, for use with lap belts alone. (center) They are no longer being produced but still can be used if there are only lap belts in the vehicle.
3. High-backed boosters, used as belt-positioning boosters (right). Most have a clip or strap to hold the shoulder belt in place.

   Some high-backed boosters have removable harnesses. (**B**, on back) This type can be used with the harness for a child under 40 lbs.

Children who reach 40 pounds before age 3 may not be mature enough to stay seated properly in a belt-positioning booster. A vest that uses the belt system and a tether strap would be an option in this situation.



All of these children fit in booster seats. The one with the shield (center) is used with a lap belt alone. The booster on the right has a high, firm back.

Child Seat/Booster. This seat (left) has a 5-point harness. If you remove the harness it becomes a belt-positioning booster (right) to use with a lap/shoulder belt for a larger child.

B

C

This belt-positioning booster also has a shield for use when only a lap belt is available. If the shoulder belt gets loose, give it a strong tug to make it snug again.

D

Lap and shoulder belts fit right here, low on the top of the legs and across the chest.

Which booster is best?

- The belt-positioning booster (**C**) is the best choice if your car has combination lap/shoulder belts in the rear seat.
- Choose a booster with a removable shield if your child sometimes rides in a car with a lap belt only.
- Use a booster with a high back if there is no head restraint for the child.
- The booster with a high back and a removable harness (**B**) provides the most options in many vehicles. Check the label for the weight limit on the harness.

How long should the booster be used?

- Try the vehicle belts on your child as he or she grows taller. When the child sits comfortably without slouching and with the lap belt low on the hips and the shoulder belt across the shoulder, use the belts without the booster. Lap belt fit is most important (see below).
- Do your child's ears come above the top of the vehicle seat back? If so, a high-back booster will improve neck protection. (**B**)

How should a lap belt fit?

The lap belt should fit low over a child's upper thighs. (**D**) Make sure the child sits straight against the seat back. Keep the belt snug. If the lap belt rides up onto the tummy, it could cause serious injuries in a crash.

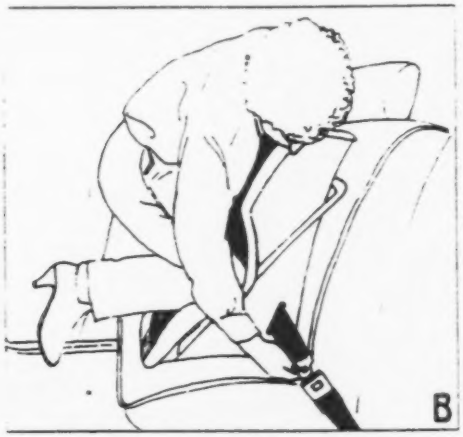
How can you make a shoulder belt fit better?

The shoulder belt should stay on the shoulder and be close to the child's chest.

- If the shoulder belt rubs against the neck, it's uncomfortable for the child but not harmful. Try these suggestions to improve belt comfort or fit.
  a. Fold a soft cloth over the belt or use a soft belt cover you can buy from a catalog, an auto supply store, or a discount store.
  b. If you have the kind of shoulder belt that stays loose when it is pulled out, make sure there is no more than one inch of slack. Too much slack will prevent the belt from working well. Teach your child to tug at the shoulder belt to take up excess slack.
- If the shoulder belt fits so poorly that it goes across the neck or face, raise the child with a belt-positioning booster.

  NEVER put a shoulder belt under the child's arm or behind the back. Either of these kinds of misuse could cause serious injury in a crash. If a belt-positioning booster is not available, a lap belt in the rear seat would work better.
- **Warning**: devices advertised to improve fit for older children and adults are not covered by government standards. They may help with shoulder belt comfort but may put too much slack in the shoulder belt or cause the lap belt to ride up. **Boosters are a better solution for children who fit in them.**

Be sure to read your car owner's book for information on using the vehicle belts correctly with safety seats



To make your child's safety seat secure, push down on it while you tighten the belt

This belt is much too loose to hold a child safety seat! If it loosens when you pull on it, use another set of belts

Tip #6
is your safety seat secure in the car?

To do its job, a child safety seat must be held securely against the vehicle seat back. If the lap part of the safety belt is not tight or the safety seat slides around on the vehicle seat, your child may not be protected.

Always read the instructions that come with the safety seat. Also read the section on safety belts and child safety seats (child restraints) in your vehicle owner's book. (**A**) If you cannot attach your seat tightly, call your vehicle customer service number for help.

WARNING: Children age 12 and under should ride in the back seat. **Never** put an infant (less than one year old) in the front of a car with a passenger-side air bag. **Infants** must always ride in the back seat facing the **rear** of the car.

How Tightly Should a Safety Seat Be Attached?

The lap part of the belt must hold the safety seat firmly in place. To make it tight, push the safety seat down into the seat cushion while you tighten the belt around it. Push down on it with your full weight to get the belt really tight.

To check for a tight fit, pull the safety seat forward and push it from side to side. It is okay for a rear-facing seat to tip toward the vehicle seat back. If the belt loosens (**C**) or the base of the safety seat slides forward or sideward more than an inch, your child may not be well protected.

If the safety seat moves, first try another seat location in your vehicle with a different kind of belt. The lap belt in the middle of the back seat may work best to keep your safety seat in place.

Which Kinds of Belts Are in Your Vehicle?

There are **lap belts** that hold the hips and **lap/shoulder belts** that hold the hips and one shoulder. There are several kinds of **retractors** to take up slack and **latchplates** that fit in the buckle. Read the following pages for the ways the belts, retractors, and latchplates in vehicles work.

Many vehicles have belts that stay loose while you drive and lock up in a crash. This sheet will tell you how to make this kind of belt stay tight.

The owner's manual for recent vehicles tells you about using belts for child safety seats. Starting with the 1996 model year, vehicles MUST have safety belts designed to stay tight around safety seats.

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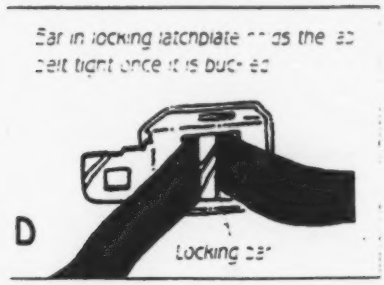

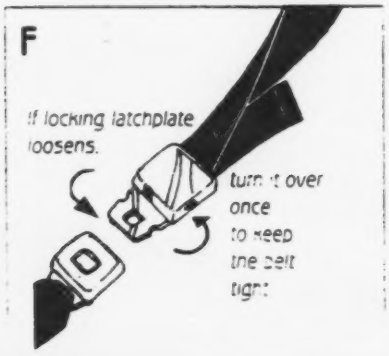

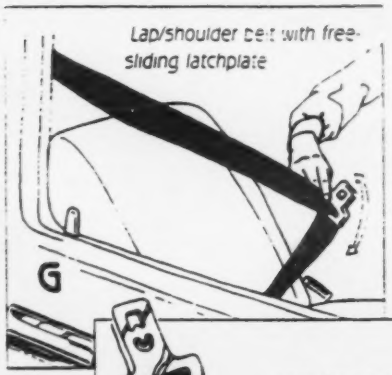

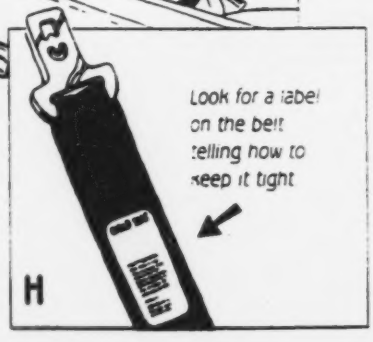

How to Check If A Belt Retractor Locks

There are two kinds of retractors that take up slack in the belt.

1. An "emergency locking retractor" locks only during a crash or sudden stop. During normal driving you can pull the belt in and out easily. Check it in a deserted parking lot with your lap/shoulder belt on. If you slam on the brakes while driving about 10 mph, you will feel the belt "grab" you.
2. An "automatic locking retractor" locks whenever you stop pulling it out. To check for an automatic locking retractor, pull the lap belt out and stop. When you pull on it again, you will find it is locked. This kind of belt will hold the safety seat tightly. Take the slack out by pushing the webbing back into the retractor.

"Switchable" Retractors

A switchable retractor works well with safety seats. It is an emergency locking retractor that can be switched to an automatic locking retractor. The retractor may be on either a lap belt or a lap/shoulder belt. The belt usually has a label on it telling you how it works. (**H**) You also can read about it in your vehicle owner's book.

In most cases, you switch the retractor by pulling the belt slowly all the way out until it goes no farther and you hear a click. It may pull out from the lap end or shoulder end. When you let the belt roll back, you will find that it locks every inch or so and will hold a safety seat tightly. In some vehicles, there is a button to push on the retractor instead. Again, check in the owner's book.

Belts with Locking Latchplates

Locking latchplates (**D**) work well with safety seats. They usually are found on lap belts in center rear seats. Lap/shoulder belts in many vehicles also have them. A locking bar prevents the belt from loosening once it is tightened.

To tighten this kind of belt, pull on the loose end of the lap belt or on the shoulder part of the lap/shoulder belt. This tightens the lap belt. Then test for tightness by pulling the safety seat forward and side to side.

If this kind of belt does not stay tight, see if the latchplate is fastened right at the place where the belt turns to go through the slot in the safety seat (**E**) or around its frame. In this position, the belt may slide through the latchplate. Turn the adjustable end of the belt over. (**F**) This will keep it tightly locked in most vehicles. This also may help keep the belt from loosening slowly over time.

Lap/Shoulder Belt with a Free-Sliding Latchplate

This kind of belt (**G**) has one piece of belt webbing that slides through the latchplate even when the belt is buckled. It usually has an emergency locking retractor. It stays loose except in a crash or sudden stop. To lock this belt around a child safety seat, use a metal "locking clip." Some belts are labeled to tell you the locking clip is needed. (**H**) First check to see if it has a switchable retractor that allows the retractor to stay locked (see above).

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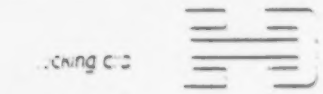


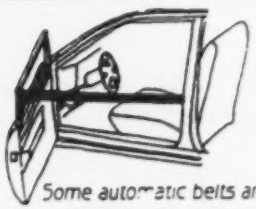
Thread the belt through the locking clip

Locking clip installed on belt close to latchplate

I

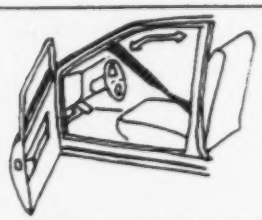
Kinds of Automatic Belts

J



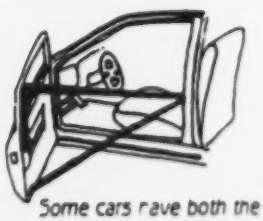
Some automatic belts are attached to the door. Most have a separate lap belt that must be fastened by the user.

K



Some shoulder belts move along a track above the door. These have a separate lap belt that must be fastened by the user.

L



Some cars have both the lap and shoulder belts attached to the door. A special belt is needed to anchor a safety seat.

How to Install a Locking Clip on a Lap/Shoulder Belt With a Free-Sliding Latchplate

If the lap/shoulder belt (**G**) does not have a switchable feature to lock it around a child safety seat, you should use a metal "locking clip" (**I**) to keep it tight. You will find this clip attached to the side or back of most new safety seats. If you do not have a locking clip, you can buy one from a safety seat manufacturer or from Ford, Nissan, or Toyota dealers. Here is how to install the clip. (**I**)

1. Put the belt through the correct path on the safety seat and buckle it.
2. Push down on the safety seat. Pull up on the shoulder end of the belt until the lap belt is pulled tight.
3. Hold the two parts of the belt together at the latchplate and unbuckle it.
4. Thread the belt through the locking clip as shown, close to the latchplate.
5. Buckle the belt again. If you put the clip on right, the belt will now stay tight around the safety seat.
6. Remove the locking clip when the belt is not holding a safety seat.

The regular locking clip that comes with most child safety seats must be used in this way only.

Belts That Do Not Lock

Belts with emergency locking retractors in the lap part of the belt stay loose. These belts do not have switchable retractors (see page 2) and need a special belt-shortening clip (heavy-duty locking clip) to shorten the lap belt (see page 4). Such belts are:

- Lap belts in front seats of many cars that have automatic shoulder belts;
- Lap belts in rear seats of some older cars;
- Often on belts with lap and shoulder belts sewn onto the latchplate (**O**, see page 4). These latchplates may be found in front or rear seats.

Automatic Safety Belts

Some automatic shoulder belts are attached to the door and wrap around you when you close the door. (**J**) Others have a motor which moves them along a track above the door (**K**) when you turn on the vehicle. The best way to avoid problems with these belts is to buckle up children in the back seat.

Most automatic shoulder belts have separate lap belts. Some of these lap belts lock, but many do not. Some are "switchable" (see page 2). Some vehicles (Cougar, Thunderbird, 1989-93; some Nissans) offer a separate "child seat buckle" to use with the front seat lap belt to hold a safety seat.

Where **both** the lap and shoulder belts are attached to the door (**L**), as in many GM and some Nissan and Honda cars, they should **not** be used to secure a child safety seat. To anchor a child safety seat, it is necessary for your car dealer to install a special "attaching belt."

Contoured Bucket Seats and Child Safety Seats

Some vehicle seats have hollows and humps that prevent the safety seat from resting flat on the cushion. Use another position if possible, or find a safety seat with a base that fits better in your car.

Always check your vehicle owner's book for belt information.

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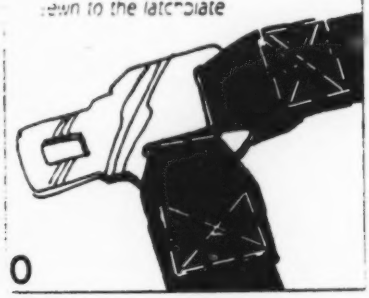
M

Belts anchored forward of the seat back allow a safety seat to slide forward, even if the belt is snug

N

A tether strap holds the top of the safety seat against the seat back. Shown here installed in back of station wagon

Lap and shoulder belts sewn to the latchplate



O

Belts Anchored Forward of the Seat Back

Belts that come out of the seat cushion or from the side of the vehicle seat (**M**) may not hold your child's safety seat against the vehicle seat back. Test your child's seat by pulling it forward and sideways. If the base moves, use a different seating position unless your vehicle owner's book shows you how to make the belt system hold a child safety seat securely. A tether may help.

A Tether Can Help Keep A Safety Seat Secure

A top tether strap (**N**) anchors the upper part of a forward-facing child safety seat when it is bolted to the frame of the vehicle. It may be the only way to keep a safety seat secure if belts are anchored forward of the seat back. A tether aids protection even when the safety seat is held firmly with the lap belt.

Some manufacturers have tether kits for their forward-facing safety seats. Do not attempt to install a tether on a safety seat not made to use one. Many vehicles have holes drilled behind the rear seat to hold a tether anchor. Some have nuts installed. Check the owner's manual for tether anchor locations.

Lap and Shoulder Belts Sewn to the Latchplate

Some belts have the lap and shoulder parts sewn separately to the latchplate. (**O**) Check to see if the lap belt can be locked or "switched" to one that locks (see page 2). If not, use a special heavy-duty locking clip to shorten the lap part of the belt (see below).

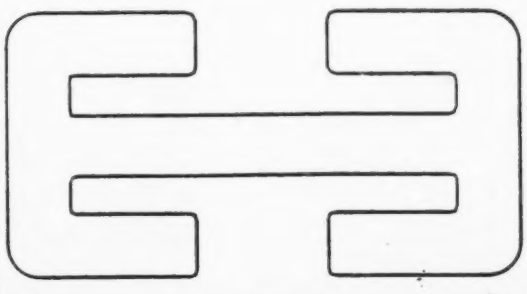
How to Shorten Lap Belts That Do Not Lock

If a lap belt or lap part of a lap/shoulder belt with a sewn-on latchplate does not lock and cannot be "switched," you can shorten the belt to make it the right length to hold your safety seat tightly.

You will need a special belt-shortening clip ("heavy-duty" locking clip, **P**). This special clip is available **only** from Ford, Toyota, and Nissan dealers. Your vehicle owner's book may explain how to use it. (Toyota locking clips come with instructions.)

P

Belt-shortening (Heavy duty locking) clip



The only way you can tell for sure that you have a heavy-duty locking clip is to see if it is this size. Some are less than 3 inches long but are not marked. You would not be able to tell the difference from a regular clip.

This heavy-duty clip looks just like a regular locking clip but is made from extra-strong metal. Some are a little bigger, about three inches long. If you buy a heavy-duty clip, mark it with a dab of nail polish or paint so you will know which kind it is.

WARNING: Use ONLY a heavy-duty locking clip to shorten a lap belt. Use of a regular locking clip to do this would put your child in serious danger in a crash. The regular clip could bend and release the belt, leading to possible serious injury.

Use a locking clip to shorten a belt **only** if you know that it came from Ford, Toyota, Nissan and you have instructions for using it. If you have questions about how to use locking clips or keeping child restraints tightly secured in your vehicle, call your vehicle customer service line.

Tip #7
harness straps: your child's link to safety

Harness straps hold your child in his safety seat in a crash

The harness holds your child in his seat to protect him in a crash. (**A**) Some safety seats have just a harness, others have a harness attached to a shield. A harness is no less safe than a harness and shield combination.

Four Facts about the Harness:

1. The straps must fit on strong parts of the body: the shoulders and hips.
2. The harness must be adjusted for a snug fit.
3. Rear-facing seats: The straps must be at or below the baby's shoulders.
4. Forward-facing seats: The straps of most models must be in the top-most slots. They pass over a strong support in the framework of the shell. Leaving them in the lower slots could be dangerous in a crash. Read manufacturer's instructions for your seat, as some models are constructed differently.

Using Rear-Facing Safety Seats

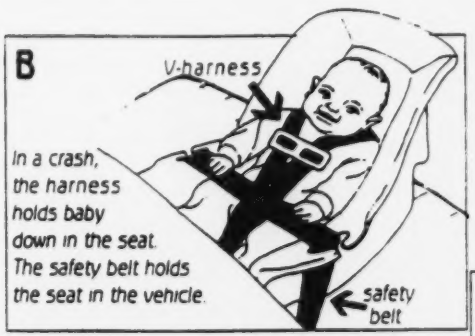
Infants ride facing rearward until they are at least one year old and weigh at least 20 pounds. A snug harness is important in this position. In a crash, the shoulder straps hold your baby down in the safety seat.

Infant-only seats usually have just two straps which go over the shoulders and form a "V" when buckled. (**B**) There may be one or two sets of harness slots. Shoulder straps should be in the lowest slots for the newborn. Move them to the upper slots only when the baby's shoulders reach the level of the slot.

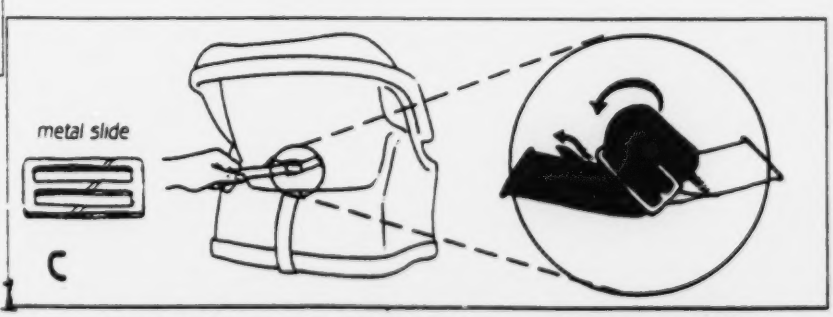
Use a harness retainer clip to keep straps on your baby's shoulders. Put the clip at mid-chest, armpit level.

WARNING: When adjusting harnesses or changing strap positions, take extra care! A metal slide (**C**) may be used to shorten or lengthen the straps. The end of the strap must be threaded up and down through the openings, then back through the first opening to "lock" it. (**C**) If the strap is not locked, the violent force of a crash could pull it out of the slide and allow your child to be thrown out of the seat.

For tips on using convertible safety seats, turn this sheet **over...**



C. A metal slide is used on many infant-only seats and older convertible models to adjust the harnes. It may be found in back or front, or on the side of the base.



Strap with metal slide must be threaded back through the slide to hold tight.

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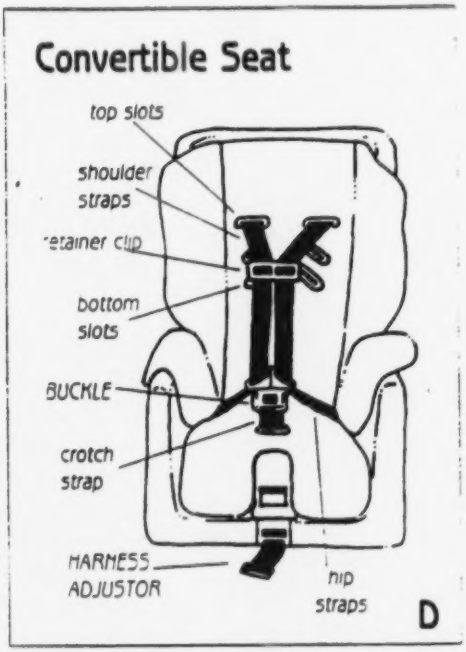
Using Forward-Facing Child Safety Seats



This convertible seat has a full harness to hold your child securely

The harness on this convertible seat is tightened by pulling on the strap between the child's feet.

Some safety seats for use by children over age one and 20 pounds are "convertibles" that also can be used by babies facing the rear. Other models are for use facing forward only. These may have different minimum and maximum weight limits. Check the instructions for each model.

If your child's seat is a convertible model, two adjustments must be made for use facing forward.

1. Put the seat in the upright position, which gives the best protection for a forward-facing child. The reclined position used for a rear-facing infant does not protect well when used facing forward.
2. The shoulder straps must be moved up to the top set of slots. (**D**) These are reinforced to withstand the force of a crash. If a convertible seat has a middle set of slots, they must not be used in the forward-facing position unless the instructions allow it.

Forward-facing models that are not convertibles also may have several sets of strap slots. You can choose the ones that fit your child best. Move the straps up when your child's shoulders reach the level of the slots.

When moving the straps up, be sure to thread them completely through the shell, not just behind the pad. Straps on older seats must go over or around a metal bar on the frame, so check the manufacturer's instructions carefully.

Harness straps are adjusted in different ways. Some tighten automatically to fit the child. Others have a dial to turn on the side or a strap to pull in the front. (**E**) A few have a metal adjustment slide like the one pictured for the infant-only seat. (**C**) The strap must be doubled back over the slide to prevent the harness from coming loose in a crash. (**C**, see page 1)

If there is an **adjustable crotch strap**, keep it as short as possible to hold the hip straps or shield down low.

Put the **shoulder strap retainer clip (chest clip)** at armpit level to hold the straps in place.

The way you install and use a safety seat makes a big difference in a crash! If the harness is loose, your child could be thrown out in a crash.

Tip #8
what are safety seat recalls?

Just like automobiles and many other products, a car safety seat may be "recalled" because of a defect which could injure your child. Manufacturers are required to fix the problem free of charge. If your seat is recalled, be sure to get it fixed right away.

When you hear about a seat being recalled:

- Find out which models and manufacturing dates are involved. Remember, the date of manufacture is the "birthday" of your seat. It helps you know if yours is one being recalled.
- Call the toll-free number of the company for information.
- If you are not sure that your seat has been recalled or you don't know the correct telephone number, call the free Auto Safety Hotline in Washington, D.C., 1-800-424-9393.

Before you call:

Write down this information about your child's seat:

Manufacturer's Name_____

Model Number/Name_____

Manufacture Date_____

This information is printed on labels attached underneath, on the side, or the back of the seat. Some of the information may be in number codes. Bring the seat to the telephone so you can answer questions about it.

This child restraint system conforms to all applicable Federal motor vehicle safety standards.

Manufactured in _____(date)
Model# _____

Have the seat in front of you when you call the manufacturer or the Hotline. Find the model number and date on the labels.

AUTO SAFETY HOTLINE
1-800-424-9393

Does the seat have to be sent back?

Not usually. Most problems can be fixed by replacing a part that the manufacturer will send you for free. Sometimes, with an older seat or when the company is out of business, you may be told to destroy it. To make sure it is not reused, break it with a sledgehammer, crush it, or take it completely apart, marking it "not for use as a car seat" before throwing it out in a black plastic bag.

Should I go on using a recalled seat?

Many defects are minor, but some are serious. All problems should be corrected as soon as possible.

- Unless you have another seat, you should go on using the recalled one while you are waiting for the repair kit. Using a recalled car safety seat almost always is safer than letting your child ride in a safety belt only.

New safety seats come with registration cards. If you buy a new one, be sure to register it. Then the manufacturer can let you know by mail if your child's seat has been recalled. If you have an older seat, call the Auto Safety Hotline or the manufacturer to find out how to register it.

If you think your seat has a problem that could be a safety defect, call the Auto Safety Hotline to report it. Also call the safety seat manufacturer. Many serious problems are discovered from reports by parents.

Tip #9

Air bag safety: **Buckle up everyone! Children in back!**

This child is in great danger! He is using only the lap part of the lap/shoulder belt and is perched on the edge of the seat, very close to the air bag.

An infant or child riding in the front seat can be seriously injured or killed by the inflating air bag.

An air bag is not a soft pillow. To do its important job, an air bag comes out of the dashboard very fast, faster than the blink of an eye. Many people's lives have been saved by air bags.

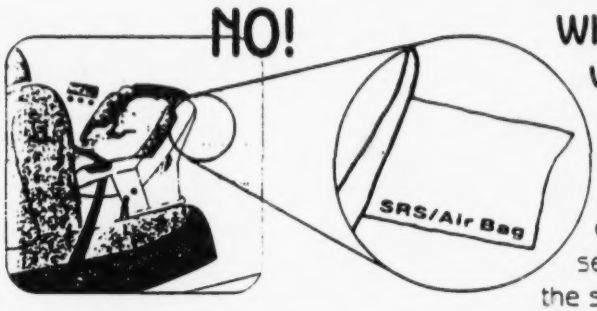
The force of an air bag can hurt people who are too close to it. Drivers can prevent injuries to adults and children from air bags by following these safety steps.

Air Bag Safety Steps

- Infants in rear-facing child safety seats must never ride in the front seat of a vehicle with a passenger side air bag.
- Children 12 and under should ride buckled up in a rear seat. They should use child safety seats, booster seats, or safety belts appropriate for their age and size.
- Everyone should buckle up with both lap AND shoulder belts on every trip. Driver and front passenger seats should be moved as far back from the dashboard as practical.
- Infants under age one must ride facing the rear of the car in the rear seat. Parents should feel just as comfortable in this situation as they do when they put their babies down for a nap and leave the room.
- If a baby has special health needs and requires full-time supervision, ask another adult to ride with the baby in the back seat and travel alone as little as possible until the health problem is resolved.
- Check your vehicle owner's manual and the instructions provided with your child safety seat for information on air bags and safety seat use.

This car has a passenger-side air bag, so baby always rides in back.

Above illustrations from the Air Bag Safety Campaign, National Safety Council



Why have children died in vehicles with air bags?

In almost all cases in which an infant died, the baby was riding in a rear-facing safety seat in the front passenger seat. The back of the safety seat was so close to the dashboard that the air bag hit the safety seat with tremendous force. The force broke the back of the safety seat and caused a fatal brain injury. Child safety seats are **not** designed to protect against this extreme impact.

In almost all cases in which a child over age 1 has died from impact by the air bag, he or she was "out of position" – either unbuckled, or not wearing the shoulder portion of the safety belt. The child slid or flexed forward during pre-crash braking, so the head and neck were close to the dashboard at the time the air bag was triggered. Severe head or neck injuries occurred.

If a child is sitting against the seat back, fully restrained by a forward-facing child safety seat or a lap/shoulder belt **and** the seat is pushed all the way back, the danger from the air bag is reduced.

How do you know if your vehicle has a passenger air bag?

Here are some signs:

- Compartment cover in dashboard panel with embossed letters. *SRS*, *SIR*, or *SRS/Air Bag*.

  Beware: NOT all vehicles have these marks. NOT all vehicles have a cover that shows in the dashboard.
- Warning label on sun visor (often on the back of the visor) and/or on the front of the right door frame.
- Description in the owner's manual.

What about sports cars and pickup trucks?

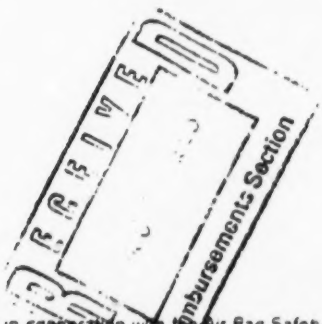
If there is no rear seat and no air bag shut-off switch, a child is at high risk from a passenger-side air bag.

Some pickup trucks made since model year 1996 have switches to shut off the passenger-side air bag. Other vehicles may have them in future years. Turning off the switch is the best way to protect an infant riding in a rear-facing safety seat or an older child using a safety seat, booster, or safety belt.

What if you have no alternative except putting a child in front?

If there is no room in back, a child **over age one** may have to ride in the front seat. Here's how to reduce the risk:

- Make sure the child is correctly buckled up with the vehicle seat moved as far back as possible. A toddler/preschooler should use a forward-facing child safety seat; an older child should use a belt-positioning booster or lap/shoulder belt.
- Fasten the harness or lap/shoulder belt securely.
- Make sure an older child does not slip out of the shoulder belt or lean toward the dashboard.



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